

Work Order ID 137455

137455

Page 1

October 01, 2015 12:27:33 PM

Item ID: D350-636-016

Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Stop *NS2*

Start Date: 10/1/2015 Start Qty: 1.00 *1*

Cust Item ID:

Required Date: 10/29/2015 Req'd Qty: 1.00 *1*

Customer:

Reference:

Approvals: Process Plan: SA Date: 151001 Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr								
D4168-042	B								

100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	record fwd angle: <u>89.40</u>								

MCJ 15-11-25

DAS 28
9-89
NOV 27 2015

Photocopy blue file and type labels per PPP D350-636-016 CHG 005

B137455RH

DQA:

QWADate: 15/12/09

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed:

Date:

Work Order update only ☐

Work Order: <u>137455</u> Part No. <u>D350-636016</u> NCR No.		DISPOSITION Rework ☒ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☒</td> <td>Cross tube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Compos te ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☒	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Compos te ☐	Supplier ☐																																															
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Date : <u>15.10.15</u>		Step #: <u>160</u>		QTY Effective : <u>①</u>		MRB (QSI042) Approval <u>A.P.</u> <u>15.10.15</u>																																																																	
Description Work Order Deviation <u>EXTRA PILOT HOLE DRILLED IN LOCATION INDICATED ON ATTACHED DWG.</u> <u>R.C. Lack of attention. Employee drill hole in wrong location</u>				Disposition <u>ACCEPTABLE TO FILL PILOT HOLE BY TIG WELDING PER MIL-STD-2219 CLASS C USING 5356 FILLER ROD. GRIND FLUSH & TOUCH UP ALODINE</u> <u>A/R M132917</u> <u>.BE</u>				Completed By <u>BE</u> <u>15-10-15</u> Lead hand / Supervisor Approval Verification <u>15-10-15</u> QC / QA Coordinator Approval <u>DAS</u> <u>9</u> <u>9-89 15-10-15</u>																																																															
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Work Order ID 137455

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137455

Page 2

Item ID: D350-636-016

Accept

N19000040100Setup Start ***NS1***

Revision ID:

Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Stop ***NS2***

Start Date: 10/1/2015 Start Qty: 1.00

1

Cust Item ID:

Required Date: 10/29/2015 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110	Skidtubes	0.00							
110									
Skidtubes	Memo	0.01							
Skidtubes	1- Pick D2600-3 Bent								
	2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside AFT end per dwg D4168								
	3- Drill pilot holes for blade fitting bolt holes using DT8983. Start with 3/16", then open to 0.500" using center drill then ream holes using 0.500" reamer. PIN first side. Repeat process on second side.								
	ENSURE PROPER POSITIONING FWD BEND MUST BE FACING UP WHEN DRILLING FIRST SIDE								
	4- Locate DT8329 off of blade fitting bolt holes and drill pilot holes for blade fitting, section R-R and open to 0.500"								
	6- Drill most FWD wearplate hole using DT9678 locating of 66.54" hole								
	7- Open up holes of Detail J to 0.297" (total of 2 holes per side) +.201" (total of one hole per side) as per dwg D4168.								
	8- Weld D2744 Cap as per Dwg D4168 and QSI 004. Fill grooves in bend left from bending as per QSI 004 A/R Aluminum Rod batch: M132917								
	9- Grind welds flush as per Dwg D4168								

BE 15-10-13**15-10-5****PTO**

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

DQA: Aut Date: 15/12/09
 QA Closed: BA Date: 15/12/03 **WORK ORDER NON-CONFORMANCE / UPDATE**
Work Order update only ☐

Work Order: <u>137455</u> Part No. <u>D350-636-016</u> NCR No. <u>15-5479</u>	DISPOSITION Rework ☒ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	<table border="0" style="width:100%;"> <tr> <td style="width:15%;"> Skid-tube ☒ Machining ☐ Thermoforming ☐ Large Fab ☐ </td> <td style="width:15%;"> Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ </td> <td style="width:15%;"> Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ </td> <td style="width:15%;"> Engineering ☐ Quality ☐ Other ☐ </td> </tr> </table>	Skid-tube ☒ Machining ☐ Thermoforming ☐ Large Fab ☐	Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐	Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐	Engineering ☐ Quality ☐ Other ☐
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling ☒	15-10-13	110	1	Rear Blade Fitting Bolt To Tight RC: PA ^{EP} ON New Tooling PA; R e-work Tooling	A.R. 15.10.13	Open Rear Blade Fitting Bolt hole to $\phi 0.527"$ ACCEPTABLE TO MAX $0.527 + 0.000$. HOLE SIZE IS BETWEEN "TIGHT" & "NORMAL" FIT	A.R. 15.10.13	 15-10-13	DAS 9 9-89 15-10-14
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☒ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge		
☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other		

Work Order ID 137455

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137455

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Item ID: D350-636-016

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cyling./Aerazur Float Comp.

Start Date: 10/1/2015 Start Qty: 1.00

1

Cust Item ID:

Required Date: 10/29/2015 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC10- Inspect visual per QSI004- ground welds Memo	0.00 0.00				1			DAS 38 9-89 OCT 14 2015
130 *130* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00				1			DAS 38 9-89 OCT 14 2015
140 *140* HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.00				1	0		15-10-14 DBL

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
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Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	
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Work Order ID 137455***137455***

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Revision ID:

Stop ***NS2***

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Start Date: 10/1/2015 Start Qty: 1.00

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

150

QC7-Inspect Chemical Conversion Coat

0.00

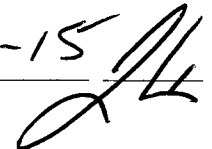
150

QC

Memo

0.00

Quality Control

15-10-15


DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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Environment ☐	Design ☐	Doc/Data ☐	Equip/Tooling ☐	Handling/Pre ☐	Material ☐	Internal Transport ☐	Tribal Knowledge ☐	LOA ☐	Substation ☐	Past Expiry Date ☐	Misidentified ☐	No Re-verification ☐	Operator ☐	Offset/Setup ☐	Supplier ☐	Training ☐	Use for Testing ☐	Poor Information ☐	Rushing ☐	Product Improvement ☐	Process Improvement ☐	Manufacturing Process ☐	Past Due ☐	Pressure/Forced ☐	Bending ☐	Centre Not Concentric ☐	Cracks ☐	Crimp/Kink/Ripple/Wave ☐	Cuffs ☐	Crushing ☐	Heat Treat ☐	Wave/Twist in Tube ☐	Marks/Chatter ☐	Temperature/Cure ☐	Set-up ☐	BOM/Route ☐	Broken/Damage/Defect ☐	Inspection Incomplete/Unqualified ☐	Contamination ☐	Countersink ☐	Cut Too Short ☐	Instructions Incomplete/Unclear ☐	Drill Holes ☐	Power Loss/Surge ☐	Folio/Program ☐	Grain ☐	Weld ☐	Wrong Stock Pulled ☐	Out of Sequence ☐	Off-set ☐	Mislabeled ☐	Fit/Function ☐	Misaligned/off center ☐	Positioned Wrong ☐	Outside Dimensions ☐	Over/Under tolerance ☐	Part Incorrect ☐	Part Lost/Missing ☐	Part Moved ☐	Drawing ☐	Finish ☐	Misread ☐	Turning Sequence ☐
OTHER : _____																																																															

Work Order ID 137455

October 01, 2015 12:27:33 PM

137455

Page 5

Item ID: D350-636-016

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Stop ***NS2***Start Date: 10/1/2015 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 10/29/2015 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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160

0.00

160

Skidtubes

0.02

Skidtubes

Memo

1-Open up holes using hole saw of Detail L and ground handling to 0.625"
(total of 8 holes per side)
as per dwg D4168.

2-Open up holes using hole saw of Detail K to 0.750" (total of 4 holes per side)
as per dwg D4168.

3- Open float hole to 0.500" using uni-bit (4 per side) and Run on wearplate
holes to .375" 4 per side

4-Chamfer holes of Detail K,L, ground handling and float holes per dwg D4168
(welding instructions on sheet 9)

5-Deburr and blow out all chips from inside of tube

6- Prepare tube for welding, remove alodine as required.

7-Bond web D2739 in place as per QSI015, let cure for 12hrs.

A/R Sikaflex-291 batch: 133136
exp. date: 16-02-12

ATTN: USE I-BEAM LOCATION AID (BLADE FITTING)

8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D4168 & QSI004
(welding instructions on sheet 8)

A/R Aluminum Rod batch: m132917

9- At section AP-AP drill out x-bolt spacer to 0.404"

15-10-15

BE15-10-20

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Work Order ID 137455

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137455

Page 6

Item ID: D350-636-016

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Stop ***NS2***

Start Date: 10/1/2015 Start Qty: 1.00

1

Cust Item ID:

Required Date: 10/29/2015 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

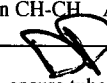
Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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10-Grind welds flush as per Dwg D4168

11-Spot face ground handling holes section (total of 4 places per side) as per dwg D4168

12- C'bore section CH-CH ADJUST TOOLING AS REQUIRED.

VERF BY: 

13- Deburr holes, ensure tube is free of all scratches before sending to paint.

***** FOR DELUXE SKIDTUBE IF APPLICABLE DRILL TOW RING HOLE IN TUBE *****

*****REF TO W/O BATCH: N/A *****

170

QC10- Inspect visual per QSI004- ground welds 0.00

170

QC

Memo

0.00

Quality Control

DAS
38
9-89

OCT 27 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong				
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions				
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance				
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect				
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing				
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved				
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing				
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish				
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread				
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence				
Past Expiry Date ☐	☐ Manufacturing Process	OTHER : _____							
Misidentified ☐	☐ Past Due								

Work Order ID 137455

October 01, 2015 12:27:33 PM

137455

Page 7

Item ID: D350-636-016

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/1/2015 Start Qty: 1.00

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Cust Item ID:

Required Date: 10/29/2015 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	QC5- Inspect part completeness to step on W/O	0.00				1			DAS 38 9-89
180									
QC	Memo	0.00							
Quality Control	***VERIFY C'BOARD IS GOOD***								OCT 27 2015
190	Pressure Wash per QSI005 4.3	0.00				1	1	15-10-28	94
190									
HandFinish	Memo	0.01							
Hand Finishing	Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.								
200		0.00							DAS 41 9-89
200									
SprayPaint	Memo	0.00				1			
Spray Painting	1- PRIME AS PER DWG AND QSI 005 4.2 PRIMER PRC DESOTO 515X349 BATCH: <u>130992</u>								15-11-9
	2- PAINT WHITE AS PER DWG AND QSI 005 4.2 PAINT BATCH: <u>133325</u>								

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
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Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : _____			

Work Order ID 137455

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137455

Page 8

Item ID: D350-636-016

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/1/2015 Start Qty: 1.00

1

Cust Item ID:

Required Date: 10/29/2015 Req'd Qty: 1.00

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Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

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Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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210 QC14- Inspect Spray Paint

0.00

210

QC

Memo

0.00

Quality Control

Inspect for foreign object per QSI 024

IRH d [signature] 15/11/12 **DAS 15 0-89**

230

0.00

230

HandFinish

HandFinishing

Memo

0.02

Hand Finishing

1- Install inserts as per Dwg D4168

2-Inspect for Foreign Objects

3-Install blade fitting D3488-041, wearshoes and ground handling hardware as per dwg D4168

SIKA FLEX 241

BATCH: M133421EXP DATE: 16/02

4-assemble o'ring to plug as per dwg D3492 and apply o'ring lube

A/R 55-o'ring lube batch: M133436 16/025-Coat all exposed fasteners with "LPS Procyon" batch: M12290

IRH d [signature] 15/11/12

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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																						OTHER : ☐																																									

Work Order ID 137455

October 01, 2015 12:27:33 PM

137455

Page 10

Item ID: D350-636-016

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/1/2015 Start Qty: 1.00

1

Cust Item ID:

Required Date: 10/29/2015 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
270		0.00							
270	Packaging								
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPPD350-636-016 Location : FG071								
280		0.00							
280	QC21- Final Inspection - Work Order Release								
QC	Memo	0.00							
Quality Control									

IX DAS NOV 30 2015
27
9-89
DAS
28
9-89
MLJ NOV 30 2015
MLJ NOV 30 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:12.5%;">Skid-tube ☐</td> <td style="width:12.5%;">Cross tube ☐</td> <td style="width:12.5%;">Water Jet ☐</td> <td style="width:12.5%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Compos te ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Compos te ☐	Supplier ☐	
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Internal Transport ☐	☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐																			
Tribal Knowledge ☐	☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐																			
LOA ☐	☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐																			
Substation ☐	☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐																			
Past Expiry Date ☐	☐	Manufacturing Process ☐	OTHER : _____																						
Misidentified ☐	☐	Past Due ☐																							

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Page 1

Work Order ID: 137455

137455

Parent Item: D350-636-016

D350-636-016

Parent Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/1/2015

Required Date: 10/29/2015

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP rev:A 10.09.28 new issue DD verf:EC IPP Rev:B
11.04.14 ecn11-553 DD verf:EC IPP Rev:C 11.10.18 as
per NCR 11-906 DD verf:EC IPP REV:D 13.08.28 PER ECN13-
594 DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D3490-1		Manufactured	No			160	Each	98.0000	4	4			
D3490-1									**			<i>BE 15-10-20</i>	
Cross Bolt Spacer													

Location	Loc Qty	Loc Code
LG	23	
133205	23	
LG001	75	
<u>134019</u>	75	

D3490-3		Manufactured	No			160	Each	27.0000	4	4			
D3490-3									**			<i>BE 15-10-20</i>	
Cross Bolt Spacer													

Location	Loc Qty	Loc Code
LG	27	
<u>130730</u>	27	

AN3C34A		Purchased	No			230	Each	17.0000	1	1			
AN3C34A									**			<i>all 15/10/12</i>	
BOLT													

Location	Loc Qty	Loc Code
ST348	17	
m127044	1	
m131618	6	
<u>m133077</u>	10	

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Work Order ID: 137455

137455

Parent Item: D350-636-016

D350-636-016

Parent Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/1/2015

Required Date: 10/29/2015

AN3C36A

Purchased

No

230

Each

Start Qty: 1.00
334.0000 4 4

Required Qty: 1.00

AN3C36A

Bolt

all 10/11/12

Location

Loc Qty

Loc Code

FG

47

101261

4

122204

2

m131367

1

m132169

40

FP001

43

m131856

43

ST338a

240

131651

80

m129907

4

m131856

4

m132381

80

m132522

72

ST347

4

m130874

4

x4

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Work Order ID: 137455

137455

Parent Item: D350-636-016

D350-636-016

Parent Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/1/2015

Required Date: 10/29/2015

AN3C37A

Purchased

No

230

Each

Start Qty: 1.00
477.0000 1 1

Required Qty: 1.00

AN3C37A

BOLT

DAS
28
9-89

Location

Loc Qty

Loc Code

ST338a

476

131651

70

M128773

1

M129650

55

M131367

70

M131856

70

M132169

70

M132381

70

M132522

70

ST347

1

129687

1

/x

AN3C42A

Purchased

No

230

Each

76.0000 1 1

AN3C42A

Bolt

DAS
28
9-89

Location

Loc Qty

Loc Code

FG

5

121103

5

ST338a

52

m130485

3

m131856

10

m132381

9

m132522

10

m132674

10

m133091

10

ST346

19

m131854

9

m131855

10

/x

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Work Order ID: 137455

137455

Parent Item: D350-636-016

D350-636-016

Parent Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/1/2015

Required Date: 10/29/2015

D3488-042

Manufactured No

230 Each

16.0000 Start Qty: 1.00
1 1

Required Qty: 1.00

D3488-042

Blade Fitting RH

**

ll 10/11/12

Location

Loc Qty

Loc Code

FP

8

131621

8

FP001

8

129602

8

xl

D3492-1

Manufactured No

230 Each

51.0000 8

8

D3492-1

Plug

**

ll 10/11/12

Location

Loc Qty

Loc Code

FP001

51

131952

40

133498

11

B136687

x8

D3492-3

Manufactured No

230 Each

86.0000 8

8

D3492-3

Plug

**

ll 10/11/12

Location

Loc Qty

Loc Code

FP001

86

125905

2

131036

1

131899

34

133470

49

x8

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Work Order ID: 137455

137455

Parent Item: D350-636-016

D350-636-016

Parent Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/1/2015

Required Date: 10/29/2015

D3873-1

Manufactured No

230

Each

41.0000

Start Qty: 1.00

Required Qty: 1.00

7 7

D3873-1

Bushing

**

all skid 12

Location

Loc Qty

Loc Code

FP001

19

B137632

x7

126709

2

135402

17

ST063

22

129742

16

134885

6

D4154-041

Manufactured No

230

Each

0.0000

1

1

D4154-041

Wearplate Assembly

**

B138703 (12) all skid 12

D4170-1

Manufactured No

230

Each

77.0000

4

4

D4170-1

Bushing

**

80510-20

Location

Loc Qty

Loc Code

LG001

77

107896

72

119639

5

4

D4171-1

Manufactured No

230

Each

22.0000

1

1

D4171-1

Bushing

**

all skid 12

Location

Loc Qty

Loc Code

ST096

22

B129060

x1

129060

22

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Work Order ID: 137455

137455

Parent Item: D350-636-016

D350-636-016

Parent Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/1/2015

Required Date: 10/29/2015

MS21043-3

Purchased

No

230

Each

Start Qty: 1.00
840.0000 5 5

Required Qty: 1.00

MS21043-3

Nut

all 10/1/12

Location

Loc Qty

Loc Code

FG

80

103691

80

FP001

11

m130673

11

GA

159

m130673

15

m131677

144

ST304

553

m131340

180

m133031

373

ST308

37

m132551

37

x5

NAS1149C0363R

Purchased

No

230

Each

1,139.000 9 9

NAS1149C0363R

Washer

all 10/1/12

Location

Loc Qty

Loc Code

FP001

60

114742

60

GA

506

m133077

506

ST260a

494

m133077

494

ST271

79

m130673

20

m132763

59

x9

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Work Order ID: 137455

137455

Parent Item: D350-636-016

D350-636-016

Parent Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/1/2015

Required Date: 10/29/2015

NAS1515H3L

Purchased

No

230

Each

Start Qty: 1.00
4 4

Required Qty: 1.00

***NAS1515H3I ***

Washer

**

ll 10/1/12

Location

Loc Qty

Loc Code

FG

40

102472

40

FP001

55

m127831

55

ST266

196

m127831

40

m130726

156

84

NAS1611-010

Purchased

No

230

Each

463.0000 8 8

NAS1611-010

O-RING

**

ll 10/1/12

Location

Loc Qty

Loc Code

FP001

463

m130770

303

m131618

160

x8

NAS1611-013

Purchased

No

230

Each

254.0000 8 8

NAS1611-013

O-Ring

**

ll 10/1/12

Location

Loc Qty

Loc Code

FP001

254

m130758

254

x8

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Work Order ID: 137455

137455

Parent Item: D350-636-016

D350-636-016

Parent Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/1/2015

Required Date: 10/29/2015

NAS1149D0863J

Purchased No

250 Each

Start Qty: 1.00
606.0000 2 2

Required Qty: 1.00

NAS1149D0863.J

Washer

**

DAS
26
9-89

DAS
28
9-89

Location	Loc Qty	Loc Code
FP001	53	
125484	53	
ST260a	415	
125268	315	
125635	100	
ST269	138	
125268	138	

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D2744

Manufactured No

110 Each

8.0000 1 1

D2744

Cap

**

BE15-10-13

Location	Loc Qty	Loc Code
LG001	8	
128212	8	

D2600-3-BENT-RH

Manufactured No

110 Each

7.0000 1 1

D2600-3-BENT-RH

Extrusion Bent RH

**

15-10-5

Location	Loc Qty	Loc Code
LG002	7	
130079	5	
130175	2	

D2743

Manufactured No

160 Each

74.0000 8 8

D2743

Crossbolt Spacer

**

BE15-10-20

Location	Loc Qty	Loc Code
LG001	74	
130731	74	

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Work Order ID: 137455

137455

Parent Item: D350-636-016

D350-636-016

Parent Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/1/2015

Required Date: 10/29/2015

D2739

Manufactured No

160

Each

4.0000

Start Qty: 1.00

1

1

Required Qty: 1.00

D2739

350 I Beam

BE1570-15

Location

Loc Qty

Loc Code

LG002

4

136279

4

ALS4-1032-225

AELS8-1032-225

Purchased

No

230

Each

687.0000

4

4

ALS4-1032-225

Rivnut

ell 13/11/12

Location

Loc Qty

Loc Code

FG

120

M127028

120

FP001

136

M131582

136

st549

431

M131582

431

AN8C35A

Purchased

No

230

Each

73.0000

1

1

AN8C35A

Bolt

ell 10/11/12

Location

Loc Qty

Loc Code

FG

5

121275

5

FP001

68

m131947

13

m132169

10

m132381

15

m132522

15

m132674

15

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Work Order ID: 137455

137455

Parent Item: D350-636-016

D350-636-016

Parent Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/1/2015

Required Date: 10/29/2015

AN6C44A

Purchased

No

230

Each

Start Qty: 1.00
617.0000 4 4

Required Qty: 1.00

AN6C44A

Bolt

**

ll 131116z

Location

Loc Qty

Loc Code

FP001

139

131649

100

m131367

1

m132169

38

ST273A

413

m130863

13

m131151

50

m132381

52

m132522

52

m132556

246

ST332

11

m130863

11

ST333

54

m130863

4

m131946

50

MS21083C8

Purchased

No

230

Each

49.0000 1 1

MS21083C8

Nut

**

ll 131116z

Location

Loc Qty

Loc Code

ST300

49

m132067

2

m133016

27

m133134

20

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Work Order ID: 137455

137455

Parent Item: D350-636-016

D350-636-016

Parent Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/1/2015

Required Date: 10/29/2015

D3631-1

Manufactured No

230

Each

Start Qty: 1.00
210.0000 8 8

Required Qty: 1.00

D3631-1

Washer

**

15/10/17

Location

Loc Qty

Loc Code

FP001

210

128320

6

131026

4

135951

100

136593

100

NAS1149C0332R

Purchased No

230

Each

5,993.000 4 4

NAS1149C0332R

WASHER

**

15/10/17

Location

Loc Qty

Loc Code

FP001

1019

m131618

15

m132930

1004

FP01

2000

m133284

2000

ST271

2974

m133284

2974

D2745

Manufactured No

230

Each

53.0000 8 8

D2745

Bushing

**

15/10/17

Location

Loc Qty

Loc Code

FP001

53

129584

7

131049

46

13136214

x2

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Work Order ID: 137455

137455

Parent Item: D350-636-016

D350-636-016

Parent Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/1/2015

Required Date: 10/29/2015

NAS1149C0832R

Purchased

No

230

Each

Start Qty: 1.00
103.0000 1 1

Required Qty: 1.00

NAS1149C0832R

Washer

**

all washers

Location

Loc Qty

Loc Code

ST271

103

m125807

103

x1

AN3C6A

Purchased

No

230

Each

107.0000 4 4

AN3C6A

Bolt

**

all shims

Location

Loc Qty

Loc Code

CA

39

m128704

39

4133363

x2

FG

10

122416

10

ST338a

54

m128769

38

m133077

16

12

ST349

4

m132767

4

MS21043-6

Purchased

No

230

Each

75.0000 4 4

MS21043-6

NUT

**

all washers

Location

Loc Qty

Loc Code

FG

20

103693

20

FP001

17

131618

2

m130325

2

m133077

13

ST304

38

m132164

13

m133234

25

x5

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Work Order ID: 137455

137455

Parent Item: D350-636-016

D350-636-016

Parent Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/1/2015

Required Date: 10/29/2015

D3493-1

Manufactured No

250 Each

Start Qty: 1.00
2 2

Required Qty: 1.00

D3493-1

Washer

DAS
28
9-89

Location

Loc Qty

Loc Code

FG 10
97201 10
ST039 27
128755 27

**

MS21083C8

Purchased No

250 Each

49.0000 2 2

MS21083C8

Nut

DAS
28
9-89

Location

Loc Qty

Loc Code

ST300 49
m132067 2
m133016 27
m133134 20

**

AN8C21A

Purchased No

250 Each

72.0000 2 2

AN8C21A

Bolt

DAS
28
9-89

Location

Loc Qty

Loc Code

FG 4
123966 2
m132169 2
ST273A 20
m132381 20
ST312A 41
m132542 11
m132674 30
ST332 7
m131100 1
m132169 2
m132522 4

**

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Work Order ID: 137455

137455

Parent Item: D350-636-016

D350-636-016

Parent Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/1/2015

Required Date: 10/29/2015

D2741

Manufactured No

250

Each

35.0000

Start Qty: 1.00

Required Qty: 1.00

D2741

Replacement Blade

**

1

B135909

DAS
26
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

FG	10	
131616	10	
FP001	1	
132981	1	
ST538	24	
131616	6	
132981	18	

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DAS
26
9-89

QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D4168-041	350 SKIDTUBE ASSEMBLY, LH
	X			D4168-042	350 SKIDTUBE ASSEMBLY, RH
		X		D4168-043	350 SKIDTUBE ASSEMBLY, LH
			X	D4168-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1				D3488-041	BLADE FITTING, LH
1			1	D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
8	8	8	8	D3631-1	WASHER
7	7	7	7	D3873-1	BUSHING
1	1	1	1	D4154-041	WEARPLATE ASSEMBLY
1				D4168-1	SKIDTUBE WELDMENT, LH
	1			D4168-2	SKIDTUBE WELDMENT, RH
		1		D4168-3	SKIDTUBE WELDMENT, LH
			1	D4168-4	SKIDTUBE WELDMENT, RH
4	4	4	4	D4170-1	SPACER
1	1	1	1	D4171-1	BUSHING
4	4	4	4	ALS4-1032-225	INSERT
4	4	4	4	AN3C6A	BOLT
1	1	1	1	AN3C34A	BOLT
4	4	4	4	AN3C36A	BOLT
4	4	4	4	AN6C44A	BOLT
1	1	1	1	AN8C35A	BOLT
9	9	9	9	AN960C10	WASHER (OR NAS1149CO383R)
4	4	4	4	AN960C10L	WASHER (OR NAS1149CO332R)
1	1	1	1	AN960C816L	WASHER (OR NAS1149CO832R)
5	5	5	5	MS21043-3	NUT
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER

GENERAL NOTES:

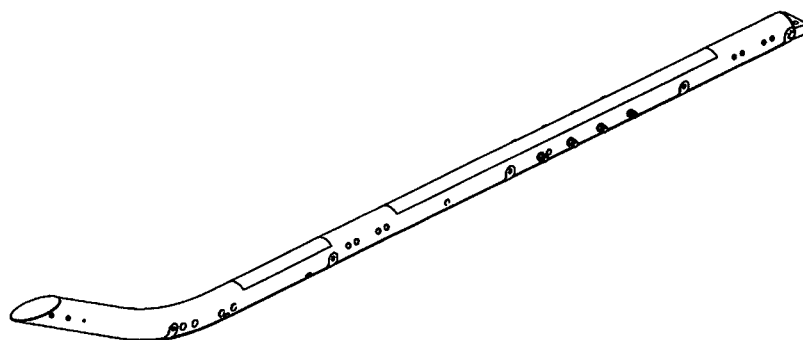
- MATERIAL: MAKE D4168-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
- FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
STANDARD: PRIME (REF. 4.2.1.3.3) AND PAINT WHITE PER DART QSI 005 4.2
 (B) OPTIONAL: POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
 BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
- TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- UNITS: INCHES UNLESS OTHERWISE NOTED
- BREAK SHARP EDGES: N/A
- IDENTIFICATION: N/A
- WEIGHT: D4168-041/-042/-043/-044 = 32.3 LBS
- WELD PER DART QSI 004
- FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
 MINIMUM YIELD TENSILE STRENGTH = 35 KSI
 MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
- COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
 FINISH WITH MEK DEGREASER.
- SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL
- SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

RELEASED
2013-08-13

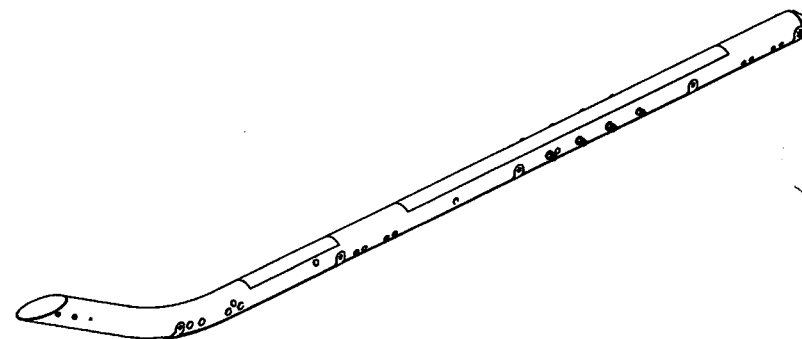
20151001

137455

B		ADD NEW TO CONTROL FWD BEND ORIENTATION (ZN D-1-4/-5/-6/-7); UPDATED FINISH OPTIONS. REASON: PAR13-276 AND NCR13-2757		MB	13.07.11
A		NEW ISSUE		SC	10.08.09
REV.	DESCRIPTION			BY	DATE
DESIGN	SC	DART AEROSPACE USA, INC.			
DRAWN		KENT, WA			
CHECKED		DRAWING NO.	D4168	REV. B	
MFG. APPR.		TITLE	350 SKIDTUBE ASSEMBLY	SCALE	
APPROVED				NTS	
DE APPR.					
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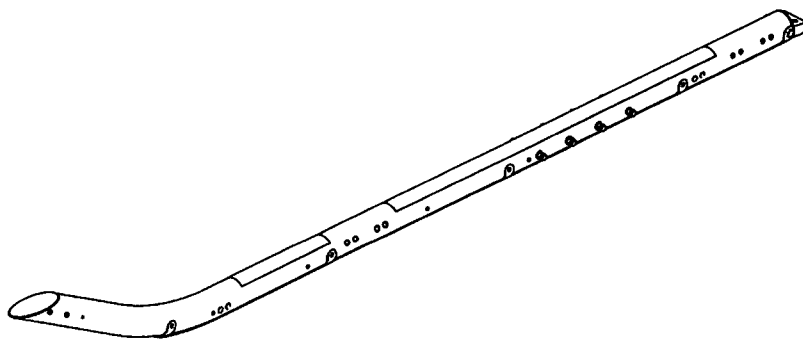
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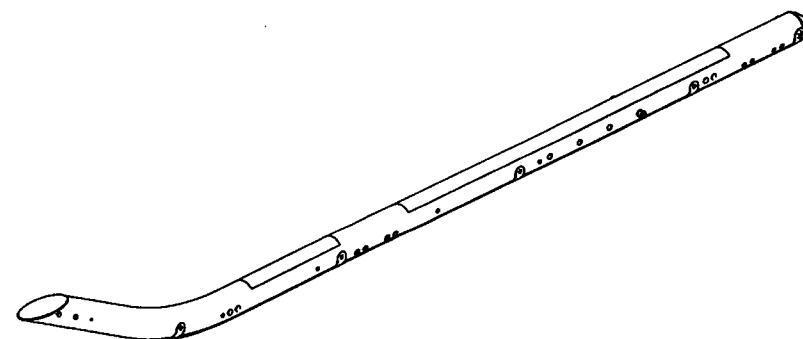
D4168-042 350 SKIDTUBE ASSEMBLY, RH

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CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D4168	SHEET 2 OF 11
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	350 SKIDTUBE ASSEMBLY	NTS
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D4168-043 350 SKIDTUBE ASSEMBLY, LH

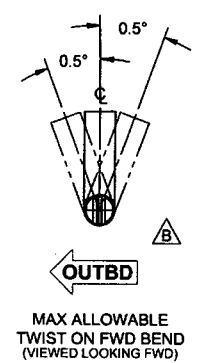
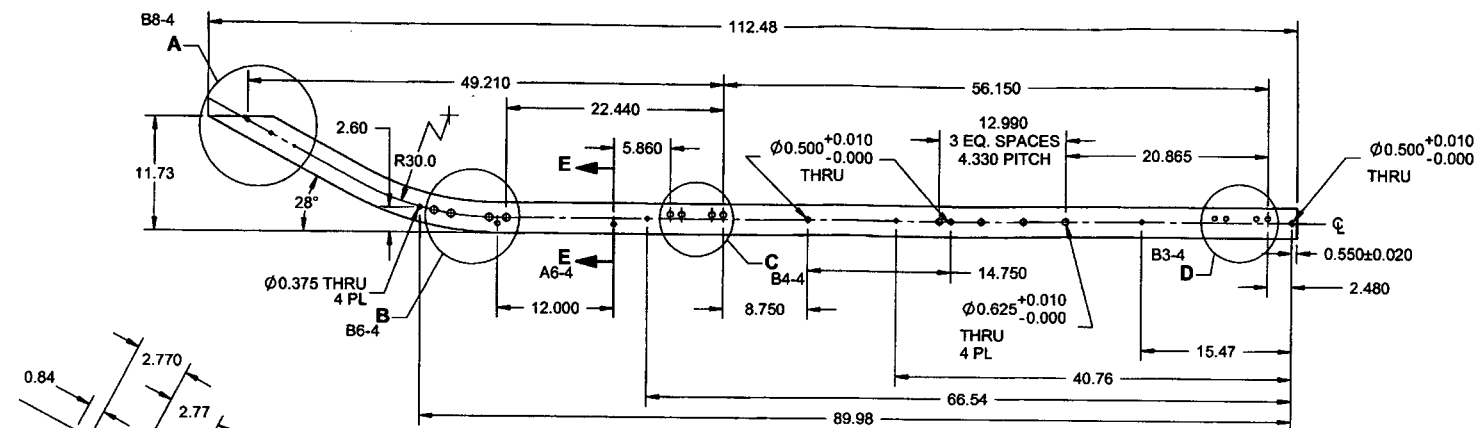


D4168-044 350 SKIDTUBE ASSEMBLY, RH

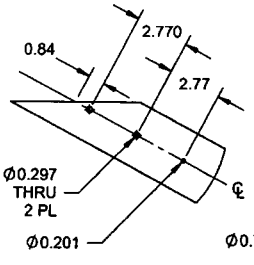
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MD

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CHECKED	MD	DRAWING NO.	REV. B
MFG. APPR.	MD	D4168	SHEET 3 OF 11
APPROVED	MD	TITLE	SCALE
DE APPR.	MD	350 SKIDTUBE ASSEMBLY	NTS
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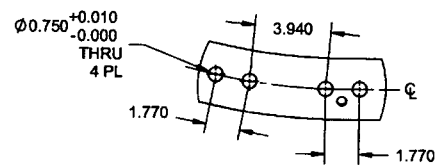
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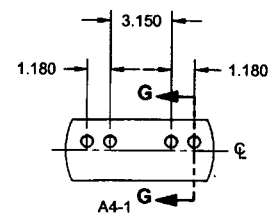
D4168-1 LH SKIDTUBE



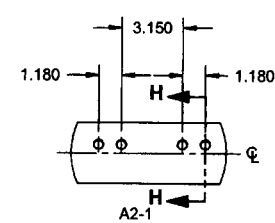
DETAIL A
SCALE 2X



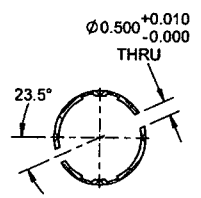
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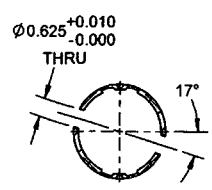
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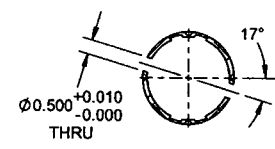
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SCALE 2X



SECTION E-E
SCALE 3X, 2 PL



SECTION G-G
SCALE 3X, 4 PL

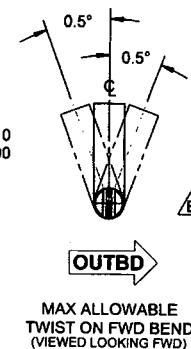
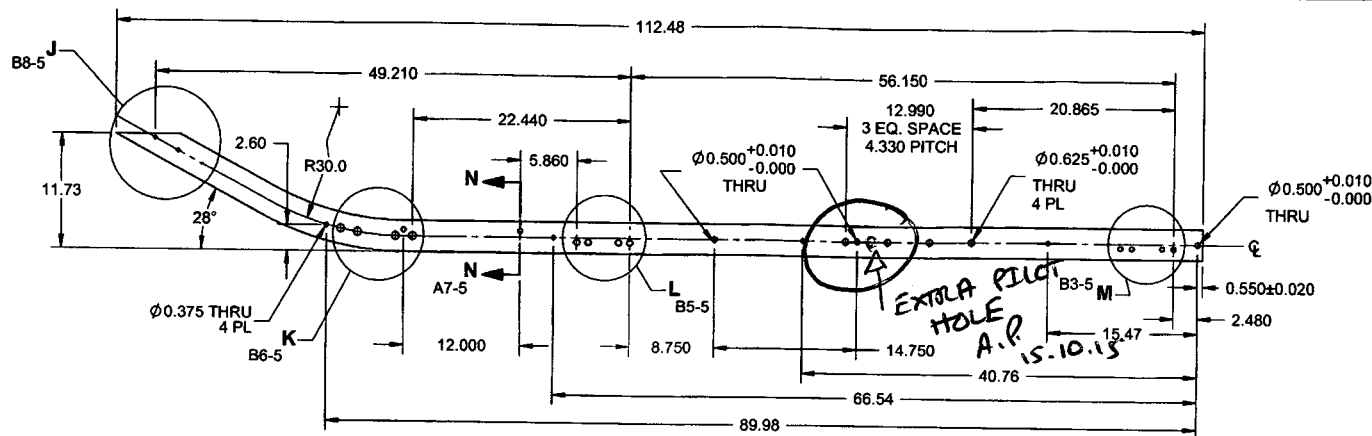


SECTION H-H
SCALE 3X, 4 PL

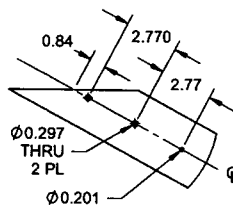
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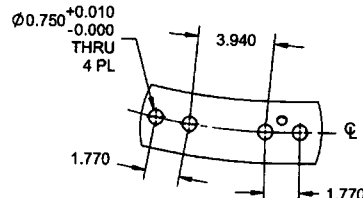
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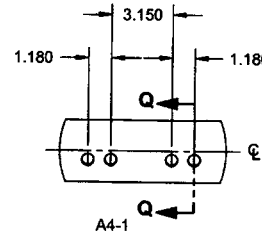
D4168-2 RH SKIDTUBE



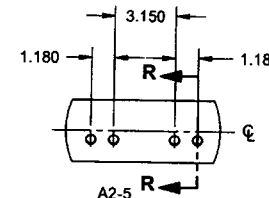
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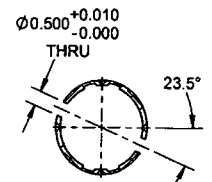
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SCALE 2X



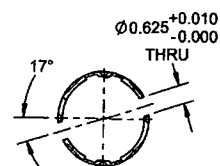
DETAIL L
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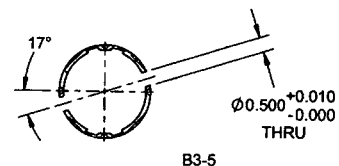
DETAIL M
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SECTION N-N
SCALE 3X, 2 PL



SECTION Q-Q
SCALE 3X, 4 PL

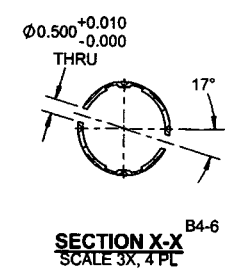
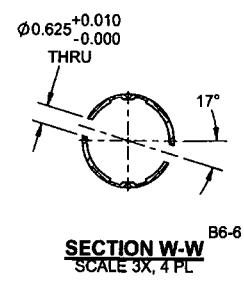
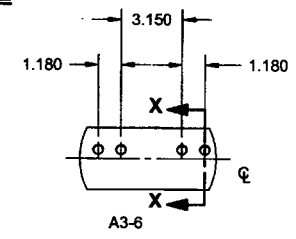
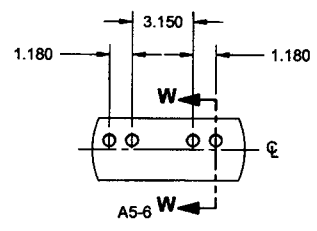
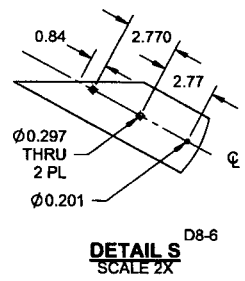
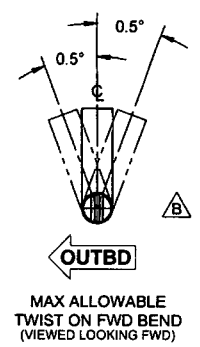
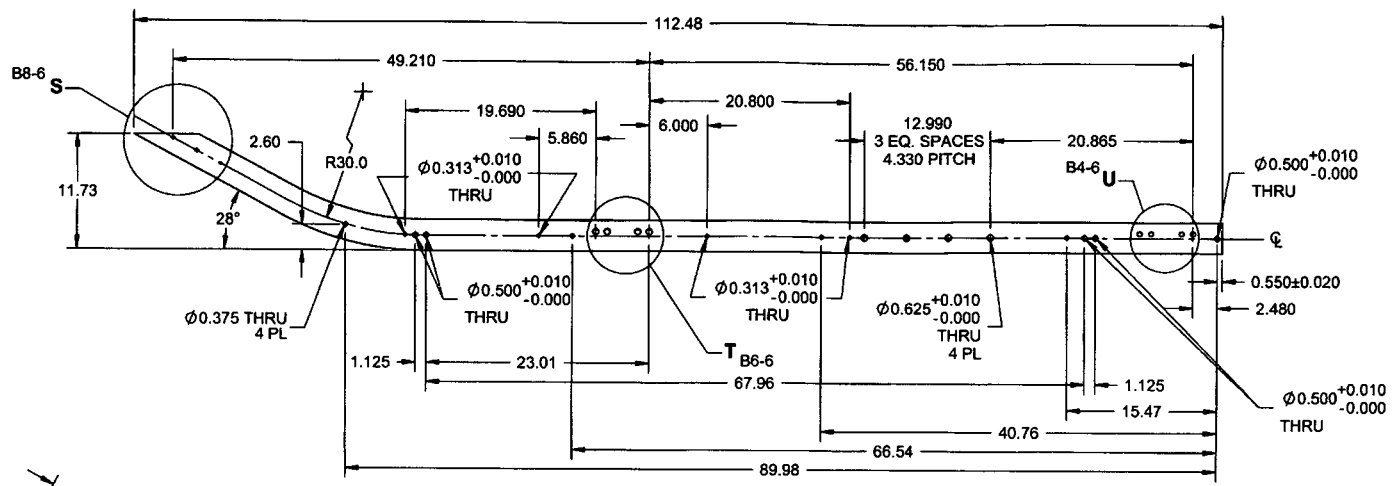


SECTION R-R
SCALE 3X, 4 PL

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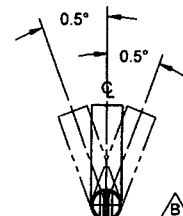
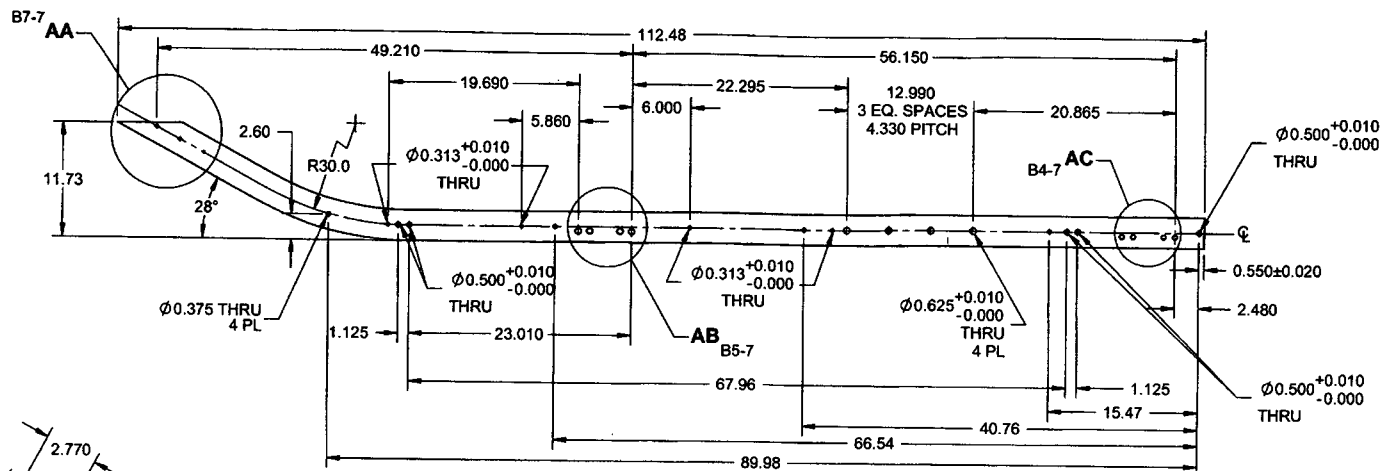


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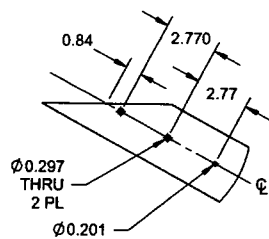
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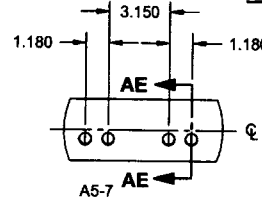


OUTBD

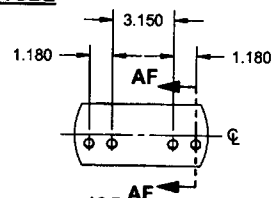
MAX ALLOWABLE TWIST ON FWD BEND (VIEWED LOOKING FWD)



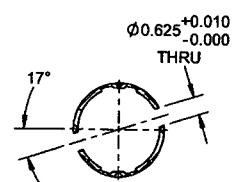
DETAIL AA
SCALE 2X



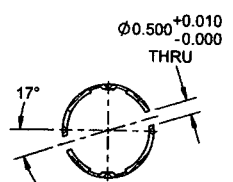
DETAIL AB
SCALE 2X



DETAIL AC
SCALE 2X



SECTION AE-AE
SCALE 3X, 4 PL

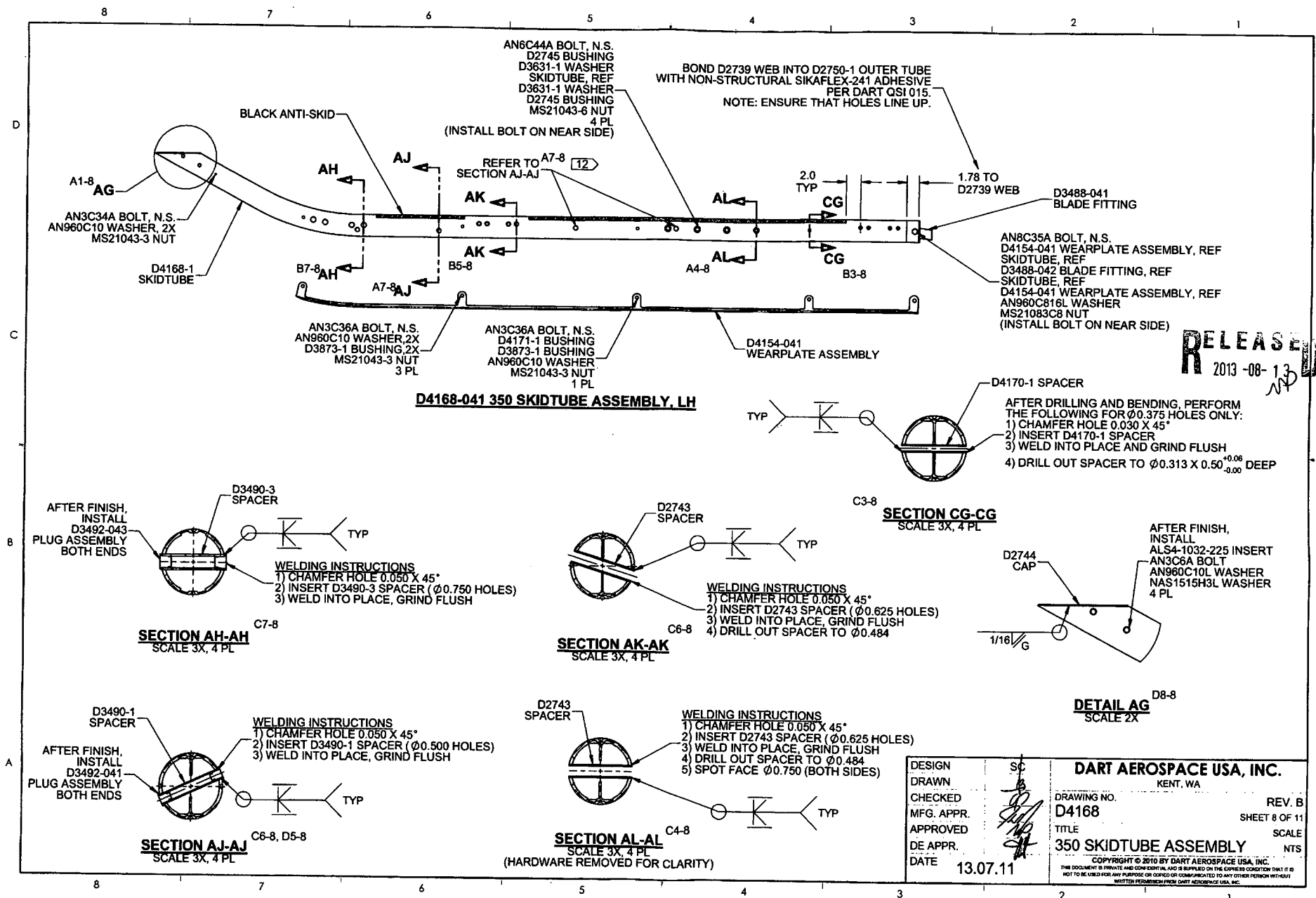


SECTION AF-AF
SCALE 3X, 4 PL

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